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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/657,747 | 09/08/2003 | Hitoshi Yamada | FUJI 20.624 (100794-00480 | 1140 |

26304 7590 03/23/2007
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| EXAMINER | |
|---|---|
| JAE, CHARLES J | |
| ART UNIT | PAPER NUMBER |
| 2109 | |

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|---|---|---|
| 3 MONTHS | 03/23/2007 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/657,747 | YAMADA ET AL. | |
| | Examiner | Art Unit | |
| | Charles J. Jae | 2109 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *08 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *08 September 2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

This Office Action is in response to the Application filed on 9/8/2003.

### *Claim Objections*

1. Claims 1, 6-7, 11, 15 and 20 are objected to because of the following informalities:

In claim 1, on line 7, the term "load information" has been previously defined, and should be changed to --the load information-- in order to make proper reference to its antecedent.

In claim 1, on line 9, the term "predicted load information" has been previously defined, and should be changed to --the predicted load information-- in order to make proper reference to its antecedent.

In claim 6, on line 7, the term "communication node" has been previously defined, and should be changed to --said communication node-- in order to make proper reference to its antecedent.

In claim 7, on line 8, the term "load information" has been previously defined, and should be changed to --the load information-- in order to make proper reference to its antecedent.

In claim 7, on line 10, the term "predicted load information" has been previously defined, and should be changed to --the predicted load information-- in order to make proper reference to its antecedent.

In claim 11, on line 9, the term "load information" has been previously defined, and should be changed to --the load information-- in order to make proper reference to its antecedent.

In claim 11, on line 11, the term "predicted load information" has been previously defined, and should be changed to --the predicted load information-- in order to make proper reference to its antecedent.

In claim 15, on lines 5, 9 and 13, care should be taken to differentiate the recitations of the term "procedure". It is recommended that the recitation on line 5 be changed to --a first procedure--, that the recitation on line 9 be changed to --a second procedure--, and that the recitation on line 13 be changed to --a third procedure-- in order to improve the clarity of the claim.

In claim 15, on line 10, the term "load information" has been previously defined, and should be changed to --the load information-- in order to make proper reference to its antecedent.

In claim 15, on line 11, the term "predicted load information" has been previously defined, and should be changed to --the predicted load information-- in order to make proper reference to its antecedent.

In claim 20, on line 7, the term "communication node" has been previously defined, and should be changed to --said communication node-- in order to make proper reference to its antecedent.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordenstam (US 6,442,615) in view of Moghe (US 6,173,323).

In his disclosure, Nordenstam describes a system for evaluating data traffic within a network. The system comprises traffic data collection unit (12) to collect data with respect to a traffic flow in the network (column 5, line 12-13), a storage unit (16) for storing information on network elements and detailed link related data (column 7, lines 41-42), a control and computation unit (14) which is used to make estimates on the future load of the network (column 7, lines 44-45), and which measures the network traffic data at regular intervals so as to increase the quality of the measurements, as required by claim 1. The data storage unit contains records of past measurements that were taken at the regular intervals, and based upon this information, the control and computation unit makes its estimates on future use of the network (column 8, lines 63-67), as required by claims 2 and 3. In Nordenstam's system, the measuring and predicting are preferably carried out by the traffic data evaluation apparatus (10), and the resources to be managed include nodes (1-8) in the network (see Figure 6), as required by claim 5. In an alternative embodiment of Nordenstam's system, the monitoring is done by individual nodes, and the nodes then report the traffic data back

to the traffic data evaluation apparatus, which then issues commands to route data to an alternate path (column 6, lines 50-55), as required by claim 6.

Nordenstam does not teach the limitation of varying the length of the polling interval. The general concept of variable polling lengths is well known in the art, however, as shown by Moghe. As congestion in Moghe's system increases, the time between polls is decreased, and conversely, when the congestion decreases, the time between polls increases (column 3, lines 16-26). These changes in the polling frequency are made based on differences (errors) in delay between the current round of polling and a previous round of polling, in accordance with claims 1 and 4.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Nordenstam's traffic evaluation method to include the use of the variable polling intervals as taught by Moghe as a way in which to efficiently and quickly adapt to network congestion.

4. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordenstam (US 6,442,615) in view of Moghe (US 6,173, 323).

In his disclosure, Nordenstam describes a system for evaluating data traffic within a network. The system comprises traffic data collection unit (12) to collect data with respect to a traffic flow in the network (column 5, line 12-13), a storage unit (16) for storing information on network elements and detailed link related data (column 7, lines 41-42), a control and computation unit (14) which is used to make estimates on the future load of the network (column 7, lines 44-45), and which measures the network

traffic data at regular intervals so as to increase the quality of the measurements, as required by claim 7. The data storage unit contains records of past measurements that were taken at the regular intervals, and based upon this information, the control and computation unit makes its estimates on future use of the network (column 8, lines 63-67), as required by claims 8 and 9.

Nordenstam does not teach the limitation of varying the length of the polling interval. The general concept of variable polling lengths is well known in the art, however, as shown by Moghe. As congestion in Moghe's system increases, the time between polls is decreased, and conversely, when the congestion decreases, the time between polls increases (column 3, lines 16-26). These changes in the polling frequency are made based on differences (errors) in delay between the current round of polling and a previous round of polling, in accordance with claims 7 and 10.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Nordenstam's traffic evaluation method to include the use of the variable polling intervals as taught by Moghe as a way in which to efficiently and quickly adapt to network congestion.

5. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordenstam (US 6,442,615) in view of Moghe (US 6,173,323).

In his disclosure, Nordenstam describes a system for evaluating data traffic within a network. The system comprises traffic data collection unit (12) to collect data with respect to a traffic flow in the network (column 5, line 12-13), a storage unit (16) for

storing information on network elements and detailed link related data (column 7, lines 41-42), a control and computation unit (14) which is used to make estimates on the future load of the network (column 7, lines 44-45), and which measures the network traffic data at regular intervals so as to increase the quality of the measurements, as required by claim 11. The data storage unit contains records of past measurements that were taken at the regular intervals, and based upon this information, the control and computation unit makes its estimates on future use of the network (column 8, lines 63-67), as required by claims 12 and 13. In an alternative embodiment of Nordenstam's system, the monitoring is done by individual nodes, and the nodes then report the traffic data back to the traffic data evaluation apparatus, which then issues commands to route data to an alternate path (column 6, lines 50-55), as required by claims 11-14.

Nordenstam does not teach the limitation of varying the length of the polling interval. The general concept of variable polling lengths is well known in the art, however, as shown by Moghe. As congestion in Moghe's system increases, the time between polls is decreased, and conversely, when the congestion decreases, the time between polls increases (column 3, lines 16-26). These changes in the polling frequency are made based on differences (errors) in delay between the current round of polling and a previous round of polling, in accordance with claims 11 and 14.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Nordenstam's traffic evaluation method to include the use of the variable polling intervals as taught by Moghe as a way in which to efficiently and quickly adapt to network congestion.

6. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nordenstam (US 6,442,615) in view of Moghe (US 6,173,323).

In his disclosure, Nordenstam describes a system for evaluating data traffic within a network. The system comprises traffic data collection unit (12) to collect data with respect to a traffic flow in the network (column 5, line 12-13), a storage unit (16) for storing information on network elements and detailed link related data (column 7, lines 41-42), a control and computation unit (14) which is used to make estimates on the future load of the network (column 7, lines 44-45), and which measures the network traffic data at regular intervals so as to increase the quality of the measurements, as required by claim 15. The data storage unit contains records of past measurements that were taken at the regular intervals, and based upon this information, the control and computation unit makes its estimates on future use of the network (column 8, lines 63-67), as required by claims 16 and 17. In Nordenstam's system, the measuring and predicting are preferably carried out by the traffic data evaluation apparatus (10), and the resources to be managed include nodes (1-8) in the network (see Figure 6), as required by claim 19. In an alternative embodiment of Nordenstam's system, the monitoring is done by individual nodes, and then nodes then report the traffic data back to the traffic data evaluation apparatus, which then issues commands to route data to an alternate path (column 6, lines 50-55), as required by claim 20.

Nordenstam does not teach the limitation of varying the length of the polling interval.

The general concept of variable polling lengths is well known in the art, however, as shown by Moghe. As congestion in Moghe's system increases, the time between polls is decreased, and conversely, when the congestion decreases, the time between polls increases (column 3, lines 16-26). These changes in the polling frequency are made based on differences (errors) in delay between the current round of polling and a previous round of polling, in accordance with claims 15 and 18.

It would have been obvious to a person of ordinary skill in the art at the time of the invention to modify Nordenstam's traffic evaluation method to include the use of the variable polling intervals as taught by Moghe as a way in which to efficiently and quickly adapt to network congestion.

## *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles J. Jae whose telephone number is 571-270-1590. The examiner can normally be reached on Monday thru Friday, 7:30AM-5:00PM, Alt Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Jules can be reached on 571-270-1808. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CJJ
03/15/2007

FRANTZ JULES
SUPERVISORY PATENT EXAMINER